

4442
Cambridgeshire County Council.

ANNUAL REPORT

OF THE

Medical Officer of Health

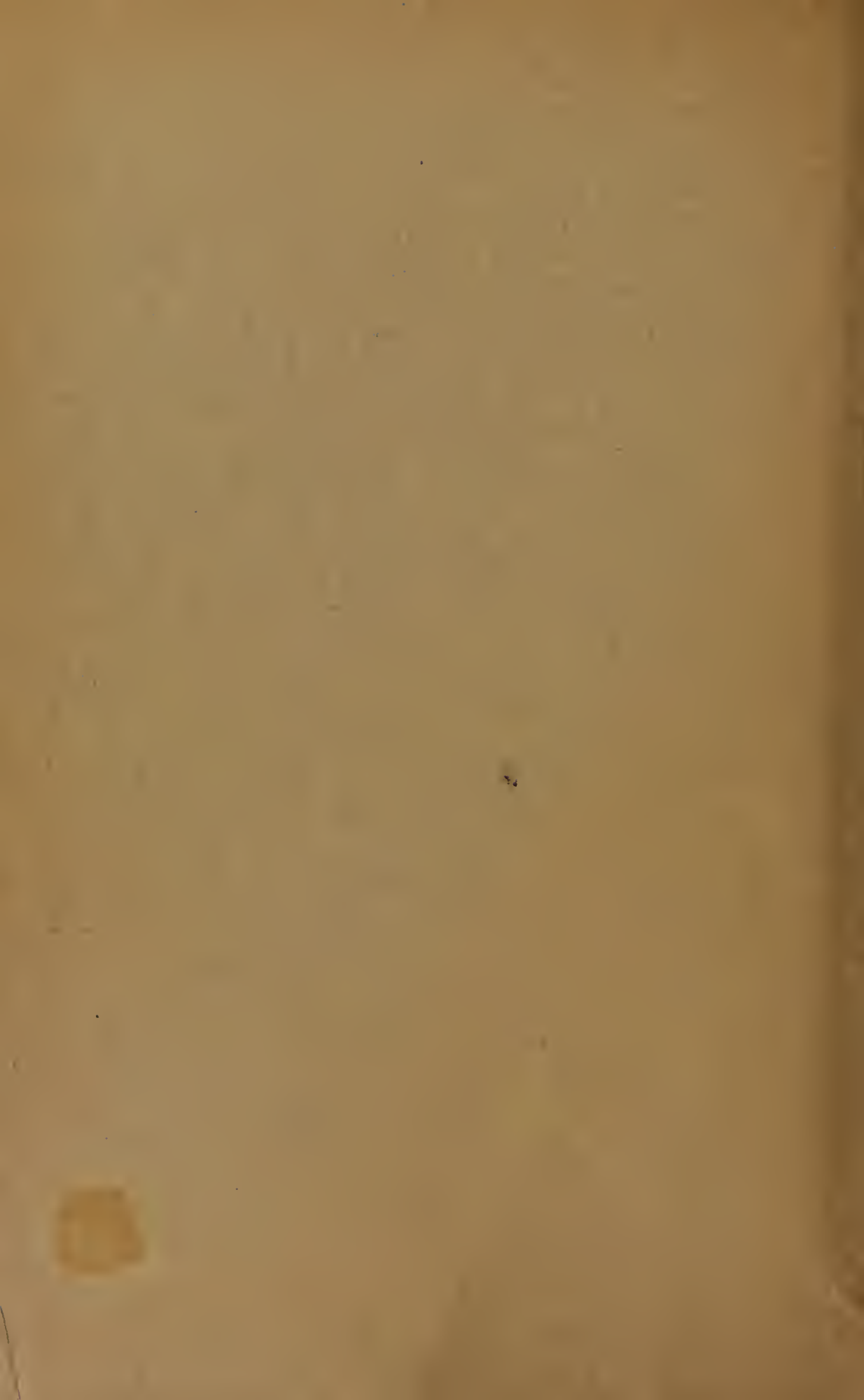
FOR THE

Administrative County of Cambridge,

For the Year 1923.

Cambridge :

**THE CAMBRIDGE EXPRESS PRINTING Co., Ltd.,
36, KING STREET.**



County of Cambridge.

COUNTY MEDICAL OFFICER OF HEALTH
AND SCHOOL MEDICAL OFFICER:
FRANK ROBINSON, M.D., D.P.H.

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL,
CAMBRIDGE.

*With the Compliments
of the
County Medical Officer of Health
and School Medical Officer.*

Cambridgeshire County Council.

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

Administrative County of Cambridge,

For the Year 1923.

Cambridge :

THE CAMBRIDGE EXPRESS PRINTING Co., LTD.,
36, KING STREET.

INDEX.

	Page
Bacteriological Diagnosis	14, 22
Birth Rate	32
Blind Persons Act	20
Cancer	42
Cerebro-Spinal Fever	39
Child-birth, Mortality from	36
Child Welfare, Maternity and	4
Death Rate from all Causes	34
Diarrhoeal Diseases	39
Diphtheria	38
Drainage, Sewerage and Refuse Disposal	29
Encephalitis Lethargica	40
Enteric Fever	39
Food and Drugs Acts, Sale of	24
Food Supplies, Control of	23
Housing of the Working Classes	26
Illegitimacy	33, 35
Infantile Mortality	34
Infectious Disease	37
Influenza	42
Isolation Hospitals	21
Measles	39
Mental Deficiency Act, 1913	18
Midwives Acts	1
Milk	23, 24, 25, 26
Notification of Births Acts	4, 6
Ophthalmia Neonatorum	40
Pneumonia	41
Poliomyelitis, Acute	39
Population	30
Puerperal Fever	36
Scarlet Fever	38
Schools	22
Small-pox	22, 37
Staff	1
Stillbirths	34
Tuberculosis, Methods of Control	12
„ Statistics... ..	40
Veneral Diseases	8
Vital Statistics	30
Water Supply	28
Whooping Cough	39

STAFF.

Whole time officers of the County Council :—

FRANK ROBINSON, M.D., D.P.H., *Medical Officer of Health and School Medical Officer.*

JESSIE H. GELLATLY, M.D., D.P.H., *Assistant do.*

W. PATON PHILIP, M.C., M.B., CH.B., *Tuberculosis Officer.*

J. C. G. EVERED, L.D.S. (EDIN.), *School Dentist.*

G. G. GALPIN, *Chief Clerk, and Enquiry Officer under the Mental Deficiency Act.*

Services in connection with the County Public Health Department are also rendered by the following :—

W. H. HARVEY, M.D., *Bacteriologist.*

L. COBBETT, M.D., F.R.C.S., *Pathologist.*

MISS BILLS, *Superintendent of County Nursing Association.*

MIDWIVES ACTS.

The County Council are the Local Supervising Authority for the Administrative County, but to facilitate the working of the Maternity and Child Welfare scheme of the Borough of Cambridge, certain powers and duties under the Midwives Act were delegated to the Town Council prior to the Midwives Act, 1918. The services of the County Council's Inspector of Midwives are utilised for inspection purposes.

During the year, 171 routine visits of inspection were paid to midwives by the Inspector, 21 in Cambridge Borough and 150 in the rural area. Special enquiries were also made from time to time as occasion arose, the number of such enquiries during the year being 29. No serious breach of the rules of the Central Midwives Board was reported, and occasion did not arise to bring any midwife to the notice of the Board.

The following is the number of women who notified their intention to practise in the years specified :—

		<i>Trained.</i>	<i>Untrained.</i>	<i>Total.</i>
January, 1906 ...	...	24	42	66
„ 1923 ...	...	50	4	54
„ 1924 ...	...	47	3	50

Of the 50 midwives who notified in January, 1924, 10 reside in Cambridge (all trained) and 40 (37 trained, 3 untrained) live in the rural area. Altogether 69 notifications were received during the calendar year, 65 from trained and 4 from untrained women, some being due to holiday duty undertaken for District Nurses. With one exception, all the trained midwives practising regularly in the rural area are District Nurses.

There are now only 3 untrained registered midwives practising in this County, compared with 44 when the Midwives Act, 1902, first came into operation. During the same period the number of trained women has increased from 24 to 47 by the formation of District Nursing Associations through the agency of the County Nursing Association. Under the provisions of the Midwives Act, 1918, three grants were approved by the County Council during the financial year in respect of candidates submitted by the County Nursing Association for training as nurse-midwives, an undertaking being given to practise for three years in the County.

Through the instrumentality of the County Nursing Association the unnursed area of the County is gradually being reduced by the formation of new District Nursing Associations which employ Nurse-Midwives. Since the war 10 new associations have thus been assisted to start work in 20 rural parishes. Grants were authorised by the County Council during the financial year in respect of the expense incurred by District Nursing Associations in the employment of three Nurse-Midwives.

Apart from intention to practise and change of address, notifications received from midwives numbered 224, against

187 in 1922. They comprised medical help for mother 154, for infant 42, still-birth 14, laying out the dead 3, liability to be a source of infection 7, and artificial feeding 4. Special investigations were made into any of the cases notified where the circumstances called for such enquiry. From enquiries into 6 notified cases of rise of temperature during the puerperium, 2 proved to be due to sepsis, 2 to influenza and the remaining 2 to non-septic causes. Of 7 notifications of liability to be a source of infection, 3 proved to be cases of sepsis, 1 of which was admitted to Addenbrooke's Hospital. There was no infringement of the rules of the Central Midwives Board by midwives in attendance. Only 2 cases of inflammation of the eyes of the infant were notified, both mild, but a third severe case was noted by a doctor called in by the midwife on account of the feeble condition of the infant which subsequently died in hospital from other causes. Proper attention appeared to have been given at birth, but the subsequent condition of the eyes not fully appreciated. The one death of an infant was notified informally, the infant having been seen by a doctor during life.

It may here be noted that under the newly revised Rules of the Central Midwives Board, registered midwives, though only attending a case as maternity nurse under the direction of a doctor, are now required to notify liability to be a source of infection. They become subject under such circumstances to the control of the Local Supervising Authority, who are thus able to require the same precautions for the protection of other women in child-birth whatever the capacity may be in which a midwife attends a confinement. A further alteration is that the requirement for a midwife to notify the death of a mother or infant now relates to all cases, and not only to those in which a doctor had not seen the patient before death.

The proportion of total births in the Administrative County to which medical aid was summoned by a midwife in circumstances of difficulty increased from 5.2 per cent. in

1919 and 7.1 per cent. in 1922, to 9.1 per cent. in 1923. This denotes a large increase in the proportion of women and infants for whom necessary medical assistance has been secured, and it is especially noteworthy that the number of mothers thus aided increased from 106 in 1922 to 154 in 1923. Of the 196 midwifery cases to which a doctor was summoned by a midwife to attend mother or infant, the payment of the fee by the County Council was claimed by the doctor under the provisions of the Midwives Act, 1918, in 152 cases, against 102 in 1922. Wherever practicable, some payment is recovered from the patient, and the County Council have renewed their grant to the Surgical Aid Association in recognition of assistance rendered by assessment and collection of these payments in Cambridge Borough.

MATERNITY AND CHILD WELFARE.

The maternity and child welfare scheme for the Borough of Cambridge is administered by the Town Council, and that for the rural area of the County by the County Council.

Cambridge Borough.—Under the Notification of Births Act, 1907, there were notified 917 births, or 96.5 per cent. of the total births registered, against 96.6 per cent. in 1922. Of the total notifications, 67.6 per cent. were received from midwives, 13.3 per cent. from doctors, and 19.1 per cent. from relatives.

The following is a record of the home visits paid by the two Health Visitors.

First visits to Infants	...	...	...	739
Subsequent visits to Infants	...	...	...	2654
Visits to children 1—5 years	...	...	...	861
First visits to Expectant Mothers	...	...	...	88
Subsequent visits to Expectant Mothers	...	...	...	13
Other Cases	...	...	...	14
				—
Total	...	...	...	4369
				—

The three Maternity and Child Welfare Centres are conducted by the Cambridge Association for Maternity and Child Welfare, the medical and health visiting staff being provided by the Corporation. Two of the centres are conducted on premises provided by the Town Council. During the year, 3,400 attendances were paid by 413 infants, and 1,346 attendances by 250 children aged one to five years. Twenty-one expectant mothers also paid 40 attendances at the Ante-Natal Clinic. Dried milk, virol and cod-liver oil and malt are supplied at the centres, either at a reduced rate or free.

The clinic for dental treatment, which was opened by the Town Council in 1921, continued in operation under the direction of the Public Dental Officer. It is available for all expectant and nursing mothers who attend the Infants' Welfare Centres, and for children under school age. During the year 73 mothers were recommended from the Centres for treatment, 62 receiving treatment and the remaining 11 delaying active operations until after the birth of the child. In addition to fillings and extractions, 28 dentures were supplied under a contributory scheme. In addition, 117 children under school age were inspected and enrolled, the effect of which is that they will be examined quarterly and, if necessary, treated on preventive lines.

In addition to the above services, Mothers' Welfare Centres are conducted weekly, at which instruction is given by a Health Visitor and by voluntary workers in first aid, hygiene, the health of mothers and children, making of garments, etc.

Under the Town Council's arrangements, 5 mothers were treated in Addenbrooke's Hospital in connection with child-birth. The arrangements include ante-natal consultations, and the use of in-patient beds in connection with confinement and for children up to five years for specified ailments.

Rural Districts.—During the year 1,219 notifications were received under the Notification of Births Acts, the number of births registered as having occurred within the same period being 1,231. After deducting 17 duplicates and 42 still-births, the number of live births notified was 1,160, or 94.2 per cent. of the total registered, compared with 93.7 per cent. in 1922, the improvement recorded for that year thus being maintained.

The proportion of notifications by medical practitioners (649) increased to 53.2 per cent. from 52.4 per cent. in 1922, notifications by midwives (505) decreasing slightly from 42.4 to 41.4 per cent., and those by relatives (65) maintaining much the same proportion, 5.4 per cent., as in 1922 (5.2). Forty-five infants were also reported for visitation purposes by Health Visitors and the Masters of Poor Law Institutions, having either come to the notice of the former during the course of their work, or being reported by the latter on their leaving the Workhouse. The interchange of complete monthly lists of registered and notified births with the Registrars continues.

As in previous years home visitation was carried out by the staffs of the County and District Nursing Associations for advice with regard to expectant and nursing mothers, infants and young children up to school age. This branch of the work is especially important in a rural area, as child welfare centres are commonly not a practical proposition in small scattered villages. The total visits paid were as follows :—

		<i>Expectant</i>		<i>Up to</i>	
		<i>Mothers.</i>	<i>Infants.</i>	<i>School Age.</i>	<i>Total.</i>
County Health Visitors		119	3633	5803	9555
District Nurses	...	1805	5721	8502	16028
		————	————	————	————
Total for 1923	... 1924		9354	14305	25583
„ „ 1922	... 1808		9691	13371	24870

During the year 492 first visits were paid to expectant mothers and 1,149 to infants, as compared with 423 and 1,139 respectively in 1922.

The total number of visits paid under the scheme was the highest yet recorded. A satisfactory feature is the increase in the proportion of expectant mothers coming under visitation, there having been a steady increase from 20 per cent. (as based on registered births) in 1918, to 40 per cent. in 1923. Apart from the general and important bearing of the health of the expectant mother on that of her expected infant, there is the particular point that from the ante-natal reports valuable information is gained as a starting point for enquiry, in co-operation with private practitioners, into cases which may require special medical assistance during confinement, which can be furnished by the Council under their scheme for maintenance in Addenbrooke's Hospital. During the year 86 special enquiries were made with a view to this end, and 20 mothers were maintained by the Council for treatment in connection with their confinement, as compared with 12 in the previous year ; 13 hospital letters were also given for mothers and children. Fifteen mothers were also referred to the Cambridge and County Surgical Aid Association with a view to dental treatment or other form of assistance.

The supply of fresh or dried milk to expectant or nursing mothers, infants and young children is highly appreciated by the mothers, and the reports furnished by the Health Visitors leave no doubt as to the value of the assistance given. During the year 62 fresh applications were dealt with by the Maternity and Child Welfare Committee, the supply of fresh milk being authorised to 39 families and of dried milk to 8 families, 47 fresh families being assisted in all, as compared with 38 in the previous year. In addition, 16 families remaining on the register from 1922 were supplied, the total number of families thus assisted being 63. The Committee are only

empowered to assist where adequate medical grounds exist, and the family come within the necessity scale approved by the Ministry of Health. They cannot give assistance on grounds of necessity alone, however beneficial this may appear to be, but wherever possible such cases are referred to other agencies.

Fuller use was made during the year of the two places which the Council are entitled to fill at the Ely Diocesan Maternity Home at Cambridge for mothers with their infants who are without the support of a father. Four fresh cases were maintained in that institution, as compared with two in 1922.

The County Council have no maternity and child welfare centres under their direct management, but have again made grants in aid to three out of the four centres which are carried on by voluntary agency in certain rural parishes.

The demand for the services of home helps during confinement has again been greater than the supply, as it is difficult to get suitable women to undertake the work. The County Council pay to the County Nursing Association a small annual retaining fee for each of the two home helps provided, and assist in payment for their services according to the circumstances of the individual case. Ten cases were attended during 1923.

VENEREAL DISEASES.

The County Council's scheme for combating venereal diseases includes arrangements for pathological diagnosis in connection with the University Medical School, treatment at the centre conducted at Addenbrooke's Hospital, Cambridge, the supply of special drugs to medical practitioners experienced in their use, and propaganda work undertaken by the Cambridgeshire Branch of the National Council for Combating Venereal Disease.

Treatment Centre.—The constituent Authorities for the treatment centre at Addenbrooke's Hospital are the Cambridgeshire, Isle of Ely, and Huntingdonshire County Councils. Any person is entitled to receive treatment free of charge, and can obtain particulars as to hours of attendance by application to the County or District Medical Officers of Health. Clinics are held twice weekly for both sexes, but at separate hours. There has been no change in the arrangements made, except that the number of beds reserved for in-patient treatment has been reduced from 12 to 6, as the latter number now meets the needs of the centre.

The work done at the treatment centre during 1923 is summarised in the following tables :—

TABLE I.

	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Under treatment on			
January 1st, 1923 ...	92	67	159
New patients during 1923	93	45	138
Total under treatment ...	185	112	297
Venereal Disease ...	175	102	277
* Not Venereal Disease...	10	10	20
Left without completing			
treatment	42	18	60
Completed treatment but			
not final tests... ..	17	13	30
Completed treatment and			
tests	53	31	84
Transferred to other			
Treatment Centres ...	8	3	11
Under treatment at end			
of year	52	32	84
*Total out-patient attend-			
ances	1007	459	1466
Aggregate " in-patient			
days "	352	527	879

TABLE II.

	<i>Other Cambs. Counties.</i>	<i>Total 1923.</i>	<i>Total 1922.</i>
New out-patients during 1923 ...	72	66	138
*Total out-patient attendances ...	787	679	1466
Aggregate in-patient days ...	294	585	879
Doses of salvarsan substitutes ...	274	436	710

TABLE III.

CAMBRIDGESHIRE PATIENTS.

	1923.	1922.	<i>Increase or Decrease per cent.</i>
New out-patients ...	72	80	-10
*Total out-patient attend- ances ...	787	874	-10
Aggregate in-patient days	294	595	-50

*The figures as to out-patient attendances in these tables relate to clinic days only, and do not include 399 intermediate attendances for irrigation, etc., paid by Cambridgeshire male patients.

Since the treatment centre was first opened in 1917 it has been attended by 1,342 patients, who have made 11,205 attendances. Of these, 814 were Cambridgeshire residents, who attended 7,253 times on the days on which the medical officers were in attendance. In addition there were intermediate attendances for irrigation, numbering 399 in 1923, all paid by Cambridgeshire patients.

The work of the centre steadily increased from the initial year 1917 to a maximum in 1920, after which there

was a marked decrease of 35 per cent. in new patients in 1921, and of 34 per cent. in 1922, with a slight increase of 2 per cent. in 1923. During the same period the total attendances made on clinic days fell 41 per cent. and 15 per cent. during 1921 and 1922, and remained stationary in 1923.

As regards Cambridgeshire patients only, the reductions in the three successive years were 47, 27 and 10 per cent. respectively. Total attendances on clinic days fell 44 per cent. in 1921, 11 per cent. in 1922, and 10 per cent. in 1923. The decline in the number of patients since the maximum attained in 1920 has been the common experience of clinics throughout the country, and there seems good reason to think that this indicates a decline in prevalence of venereal disease. Sir George Newman has recently pointed out in support of this view, that the mortality returns, as far as they go, show a steady fall in deaths attributed to venereal disease, that a body of clinical opinion holds that there is a decrease in severity of type, and that the rate of admission among troops in the United Kingdom was in 1912 only about a quarter of that in 1870. An exacerbation followed the War, from which the Country now appears to be recovering. This should not, however, lead to a relaxation of effort, both preventive and curative, and an important point is to ensure as far as possible that patients continue attendance until completion of their treatment. The figures for 1923 indicate that at the Cambridgeshire clinic the average number of attendances per patient, though appreciably higher than in 1921, were stationary in 1923 as compared with 1922. The attendances for the clinic as a whole, and for Cambridgeshire patients alone, were 10.6 and 11 per patient respectively. If attendances on non-clinic days be added, the Cambridgeshire figure should be 16.4 attendances per patient.

Laboratory Diagnosis.—Under the Council's scheme specimens are examined free of charge to medical practitioners and their patients at the University Laboratories. During

the year 316 specimens were tested by the Wassermann reaction for syphilis, and 338 were submitted for bacteriological examination, as against 406 and 247 specimens respectively in 1922. These specimens are mainly sent from the treatment centre, but also from private practitioners. The total number of specimens examined since the scheme was first instituted in 1917 was 2,474 for the Wassermann reaction, and 2,043 for bacteriological examination.

Propaganda.—The County Council have now for seven years undertaken propaganda work through the agency of the Cambridgeshire Branch of the National Council, to which body they make an annual grant. The work undertaken includes lectures, the exhibition of cinema films, and the distribution of literature. The film display in the villages in 1923 drew much larger audiences than in any previous campaign, it being estimated that some 3,500 persons attended. There is a growing volume of opinion that propaganda for the prevention of venereal disease should be continued as a part of education of the general public in public health matters generally, and a resolution to that effect was passed by the County Council for transmission to the Ministry.

METHODS OF CONTROL OF TUBERCULOSIS.

The County Council provides supervision (but not treatment) in the homes, dispensary treatment and sanatorium accommodation for tubercular persons, whether insured or uninsured, and including ex-Service men. All matters relating to the treatment of tuberculosis, including the selection of cases for sanatorium treatment and the management of the Tuberculosis Dispensary are dealt with by a special Tuberculosis Sub-Committee of the Public Health Committee.

Dispensary and Homes.—The Tuberculosis Dispensary at 1, Camden Place, Regent Street, Cambridge, serves the whole County area. The specialist staff consists of the Tuberculosis Officer, Dr. W. Paton Philip, and two Tuberculosis Nurses. In addition to consultations at the Dispensary the homes of the patients are visited periodically for supervision and advice, and the volume of work undertaken during the year is indicated by the following figures.

1. Cases examined or treated at or in connection with the Dispensary were as follows :—

					1922.	1923.
New Cases	...	...	...	...	616	625
Old	„	...	...	...	1388	1618
					<hr/>	<hr/>
					2004	2243
					<hr/>	<hr/>

2. Visits of Patients to Dispensary :—

					1922.	1923.
Insured Persons	...	...	...	...	944	868
School Children	...	...	...	...	593	962
Other Uninsured Persons	...	...	...	...	191	143
					<hr/>	<hr/>
					1728	1973
					<hr/>	<hr/>

3. Visits to Homes :—

(a) *By Tuberculosis Officer* :—

				Borough.	Rural.	Total.
Insured	...	...	...	86	2143	2229
School Children	...	...	...	58	219	277
Other Uninsured	...	...	...	80	454	534
				<hr/>		
Total	1923	...	...	224	2816	3040
„	1922	...	...	145	2811	2956
				<hr/>		

(b) By Dispensary Nurses :—

				<i>Borough.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	...	548	314	862
Uninsured	...	...	...	891	588	1479
				<hr/>		
Total	1923	...	...	1439	902	2341
	„	1922	...	1378	945	2323
				<hr/>		

(c) By General Nursing Staff :—

				<i>Borough.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	...	—	544	544
Uninsured	...	...	...	—	637	637
				<hr/>		
Total	1923	...	...	—	1181	1181
	„	1922	...	—	952	952
				<hr/>		

Grand Total home visits :—

1923	...	...	1663	4899	6562
1922	...	...	1523	4708	6231

The foregoing figures indicate an increase in the volume of work done in connection with consultations at the Dispensary, and with visits paid by the Nursing Staff generally to the homes of the patients for the same purpose and for general supervision. It should be observed also that consultations are undertaken by the Tuberculosis Officer in respect of ex-Service men, and reports are furnished with regard to them for the Ministry of Pensions.

Specimens of sputum examined bacteriologically at the Dispensary numbered 136 (104 in 1922), the tubercle bacillus being found in 25 specimens. A plant for X-ray examinations for which provision was made in the estimates for 1923-24, was installed on the Dispensary premises towards the close of the year, the arrangements under which such examinations had been undertaken at the Medical School having terminated.

Provision was made in the estimates for a limited scheme of dental treatment for necessitous cases of tuberculosis, and this was sanctioned by the County Council, but it was not found practicable to bring it into operation until early in 1924. It includes assistance for the provision of artificial dentures.

Six additional open-air shelters, with bedding outfits, were purchased, bringing the number acquired up to 135.

General after-care of the tubercular comes within the sphere of the Tuberculosis Officer, both officially and as medical adviser to the Cambridgeshire After-Care Association. These functions, in addition to general supervision of the home conditions of the patients, include advice and assistance in connection with employment and application to various organisations for assistance as regards food, etc. Employment in needle-work was for some time found for a small number of women in a workroom at the Dispensary, but it has not been practicable to continue this. It is obvious that proper after-care is of prime importance if the benefit derived by treatment in sanatorium is to be maintained, and, indeed, is an essential feature of the whole treatment scheme. Since the end of 1923, on consideration of a circular received from the Ministry of Health on this subject, the Committee have resolved to include a provisional sum in the estimates, and to confer with the After-Care Association as to the measures best calculated to attain the objects in view.

Sanatorium Accommodation.—The provision made by the County Council is for both insured and uninsured persons, including children, preferential accommodation being found for ex-Service men for whom the Treasury accept full responsibility. The following table shows that in addition to 29 ex-Service men, 79 insured persons (55 men, 24 women), 37 uninsured adults (5 men, 32 women), and 66 children were admitted to Sanatoria during the year.

		<i>In Sanat.</i>	<i>Admitted.</i>	<i>Discharged.</i>	<i>Total</i>
		<i>Jan. 1st.</i>			<i>Treated.</i>
		1923.			
Men :					
Ex-Service	...	41	29	39	70
Insured Civilians		25	55	33	80
Uninsured	...	5	5	4	10
Women :					
Insured	...	9	24	21	33
Uninsured	...	8	32	24	40
Children	...	45	66	69	111
Total 1923		133	211	*190	344
,, 1922		131	215	†215	346

* Includes 19 deaths.

† „ 19 „

Including patients in institutions at the beginning of the year, the total number under sanatorium treatment in 1923 was 344, against 346 in 1922.

The County Council pay for the maintenance of their patients in existing institutions, almost all the accommodation for men being obtained by arrangement with the Cambridge-shire Tuberculosis Colony at Papworth Everard, while vacancies for women and children are secured in institutions outside the County. Thirty beds are reserved at Papworth Colony, 14 at Bramblewood Sanatorium, 15 at Oak Bank, 12 at the Holt Sanatorium for Children and 5 at Ipswich Sanatorium, a total of 76 beds, but patients are sent to other institutions as occasion arises, including Wyton Sanatorium, Hunts. The institutions to which new cases were sent in 1923 were as follows :—

*Male**Ex-Service. Civilians. Women. Children. Total.*

Cambs. T. Colony	26	58	13	3	100
Bramblewood ...	—	—	37	—	37
Holt (Children's)	—	—	—	22	22
Maltings Farm ...	—	—	2	1	3
Wyton	—	—	2	10	12
Ipswich	—	—	—	6	6
Addenbrooke's Hospital ...	2	2	2	3	9
Kelling	1	—	—	—	1
Oak Bank ...	—	—	—	21	21
	29	60	56	66	211

It has to be recognised that for financial reasons only a proportion of cases, both pulmonary and non-pulmonary, in need of institutional treatment actually receive it. In a special report presented during the year on the unsatisfactory results which are often obtained from treatment of non-pulmonary cases, especially bone and joint cases, in their homes, the need for a more comprehensive scheme of institutional treatment of such cases was emphasised. While on grounds of infection lung cases naturally appeal more strongly to the Local Authority, on the other hand the permanent crippling and ultimate loss to the community of the value of the patient as a worker has to be seriously considered.

The Tuberculosis Officer pointed out that treatment on conservative, non-operative lines is now the general rule in this Country and gives the best results ; this involves a stay of a considerable period in such institutions as Lord Mayor Treloar's Hospital and others. A practical difficulty at present is to discriminate between the claims of individual pulmonary and surgical cases when selecting for institutional treatment, and each case has to be decided on its individual

merits, the total number dealt with being limited by the funds at the disposal of the Local Authority.

MENTAL DEFICIENCY ACT.

Special reports presented during the year included 16 cases newly notified under the provisions of the Mental Deficiency Act. Of these, 9 were notified as "neglected" (7 by the Cambridgeshire Voluntary Association, 1 by the N.S.P.C.C. and 1 privately), 3 by the County Education Committee as about to leave a special school at 16 years, 3 Poor Law cases by the Board of Control, and one on private information.

The foregoing new cases were dealt with as follows :—

Certified Institutions on petition	...	...	5
Statutory Supervision	...	...	1
Guardianship (by Poor Law Guardians)	...	...	1
No immediate action required—adjourned	...	...	4
Referred to Relieving Officer for Mental Hospital	...	...	1
Considered not subject to be dealt with	...	...	4
			—
			16
			—

Of the above 5 defectives in respect of whom petitions for certified institutions were presented, 4 were admitted in 1923 and one in 1924. One defective was also admitted in 1923, regarding whom instructions had been given in the previous year. In addition, 5 defectives notified in previous years were reconsidered in 1923 and admitted under order to certified institutions during the same year. The number, therefore, actually admitted to certified institutions during the calendar year, 1923, was 10. One defective was also readmitted to a Certified Poor Law Institution who had been allowed out on licence, and one was transferred from a certified institution to a mental hospital.

During the year, Mr. G. G. Galpin, Chief Clerk in the Public Health Department, was appointed Enquiry Officer, in succession to Mr. Leybourne, resigned. The financial grant to the Cambridgeshire Voluntary Association was continued, the Association assisting the Council by undertaking supervision of defective persons in their homes, by providing escorts to institutions, and assistance in finding places of safety. They also assist in ascertainment, and by reporting to the Statutory Committee when defectives appear subject to be dealt with under the provisions of the Mental Deficiency Act.

Since 1913, when the Council first began to administer the Act, 256 persons had been brought to their notice by the end of 1923. Of these 68 have been placed under statutory supervision undertaken by the Voluntary Association, 113 have been sent to Institutions and 6 have been placed under Guardianship. Allowing for deaths, discharge to homes and transfer to mental hospitals and other institutions, there remained at the end of the year under review, 92 cases who were being maintained in institutions (includes 2 on licence and 2 in State institutions), 2 under Guardianship, and 59 under statutory supervision in their homes, making a total of 153 under the control of the Local Authority.

The defectives under Order are being maintained in institutions in various parts of the country, the largest number (44) being in the Royal Eastern Counties Institution, at Colchester. The recent extension of this Institution has greatly reduced the difficulty experienced in obtaining accommodation for defectives in need of institutional care.

During the year a circular letter was received from the Ministry of Health, suggesting consideration of the provision of occupation centres for defectives under statutory supervision in their homes. A special sub-committee, which was appointed to go into the matter, recommended that no action be taken, on the ground that the cost would be prohibitive for the small number who might prove able to attend either

at Cambridge or at Soham, the only places where such a centre would be possible. A Sub-Committee also considered the question of the proposed revision and consolidation of the Provisional Regulations of the Board of Control and suggested certain amendments which were submitted to the Board.

BLIND PERSONS ACT, 1920.

The County Council are the Local Authority appointed under this Act to promote the welfare of blind persons within the Administrative County, apart from the responsibilities of the Education Committee with regard to the training of blind children, adolescents and adults. The Council are the registration authority under the Act, and the duty of keeping the register of cases is carried out for them by the Eastern Counties' Association for the Blind. The number at present on the register is stated to be 150, of whom 82 belong to Cambridge and 68 to the Rural Area. Of these, three are in Schools for the Blind and two are in training institutions.

The further duties of the Council are entrusted to the Cambridgeshire Society for the Blind, grants being made by the Council in respect of services rendered, which may include (a) provision for blind children under 5 years of age in Homes, (b) co-operation with the Local Education Authorities with regard to provision of training in suitable cases, (c) the provision of teachers for visitation and instruction of the blind in their homes, (d) arrangement with some suitable institution for the supply of suitable materials and tools to the blind, for the supervision of their work and the sale of articles made by them, and (e) the provision of books, etc., for blind persons.

The Annual Report for 1923-24, recently issued by the Society, shows that the two Home Teachers appointed have paid 1,612 visits in Cambridge, and 832 in the Rural Area, a total of 2,444 visits. Four blind persons have received instruction for Braille, and 12 Home workers have benefitted

by the Ministry of Health's scheme for the augmentation of wages, in such occupations as basketry, chair-caning, rug-making, knitting, crochet, and piano tuning. The Society have a Dépôt at 5, Emmanuel Street, Cambridge, where articles made by the blind are on sale and orders can be booked, and the Ministry's recent suggestion to Local Authorities that purchase might as far as practicable be made of articles made by the blind has been acted on. Though subsidised by the County Council, the Society is a voluntary body, also undertaking non-statutory work, and financial assistance will be welcomed by the Hon. Treasurer, Mr. Alfred Hyde, Rustat House, Cambridge.

In addition to other pensions, the Old Age Blind Pension is granted to 37 blind persons in the area, 12 of whom have received it during the year through the assistance of the Society.

ISOLATION HOSPITALS.

The Borough of Cambridge, and the Chesterton, Melbourn and Newmarket Rural Districts each have their own isolation hospital. Cases from the Caxton, Linton and Swavesey Rural Districts, which have no isolation hospital, as well as from certain of the other districts when their beds are fully occupied, are admitted for payment to the Cambridge Isolation Hospital, which has accommodation for 62 patients. Owing to the financial position, no further step has been taken for remedying the deficiency in the Rural Districts by a combined scheme.

It has been pointed out before that the accommodation for the staff is inadequate at the Exning Isolation Hospital, which serves the Newmarket Rural District jointly with the Moulton Rural District (West Suffolk). Plans for extension have been before the Joint Hospital Committee, but not adopted, on account of the expense, but it is understood that plans and estimates for a smaller scheme are being prepared.

In my opinion such provision should be proceeded with, as the staff are occupying beds intended for observation patients. Only one disease can safely be admitted at a time into the small hospitals maintained by the Chesterton and Melbourn Rural District Councils.

The four isolation hospitals were inspected during the year and annual grants amounting to a total of £828 were approved by the County Council for payment.

There is one small-pox hospital in the County, a temporary structure, provided by the Cambridge Town Council. All the Rural Districts have entered into agreements with the Town Council for the reception of their cases, including Chesterton Rural District Council, who have recently made this arrangement.

SCHOOLS.

The work of the School Medical Service in the Cambridge-shire elementary education area is dealt with fully in the Annual Report to the Education Committee.

Measles, whooping-cough and chicken pox were the diseases which principally caused interruption of educational work at different periods of the year. The total number of home visits paid by School Nurses for enquiry and advice in connection with infectious and contagious disease generally was 1,570.

The School Medical Staff paid 16 special visits to schools in the rural area for enquiry into infectious and contagious disease, principally for diphtheria and scarlet fever, and the School Medical Officer certified for closure of 33 schools. For bacteriological diagnosis of diphtheria, 109 swabs were taken, 4 of which showed evidence of diphtheria. During the past three years it has only been necessary to close four schools to control the spread of diphtheria, and the swabs which it has been necessary to take from the schools have not exceeded an annual average of 192, against an average of 370 during each of the eight preceding years.

The Annual Report to the County Education Committee contains notes on the hygienic condition of school premises, on which also 15 special reports were furnished during the year by the School Medical Officer, regarding 9 Provided and 6 Non-Provided Schools. In the Annual Report special attention is drawn to lack of proper washing arrangements in a number of schools, an insanitary type of closet in others, and insufficient provision for ventilation, especially in the summer months.

CONTROL OF FOOD SUPPLIES.

The District reports indicate the inspection of such regulated premises as slaughterhouses, milk premises and bakehouses, and statistics are given which indicate some activity.

In Cambridge, where there is no public abattoir, 3,190 visits were paid to the 22 private slaughterhouses. About 95 cwt. of meat and 4 cwt. of other foods were condemned as unsound. The framing of new byelaws for slaughterhouses is still under consideration. In Chesterton Rural District, byelaws submitted to the Ministry with regard to slaughterhouses have been approved.

The report on the Swavesey Rural District states that 34 cowsheds have had cement floors laid, six new dairies have been erected, and five disconnected from the dwelling house.

The Cambridge report gives details of the results of 21 bacteriological examinations of milk taken under the Milk and Dairies Amendment Act, 1922. Dr. Laird reports that all 10 samples of "certified" milk conform to a high standard of cleanliness, and were well within the Ministry of Health's standard. On the other hand, all the 11 samples of ordinary milk showed a high bacterial content, and evidence of manurial pollution. Dr. Laird, however, considers that there has been marked improvement, and that the Cambridge milk supply will compare favourably with any other.

The County Council resolved to delegate their powers in respect of graded milks under the Milk (Special Designations) Order, 1922, to the Agricultural Committee, and that the powers in relation to the Borough of Cambridge should be exercised by the Town Council. No application was received by the County Council during the year.

SALE OF FOOD AND DRUGS ACTS.

Rural Area.—In this area the Acts continue to be administered by the County Police. The total number of samples taken and reported upon by the Public Analyst was 185 (159 in 1922), of which 135 were taken formally and 50 informally. The samples were :—Milk 89, butter 20, margarine 8, lard 8, cocoa 13, tea 8, coffee 3, sugar 5, sago 4, tapioca 6, baking powder 3, vinegar 6, rice 5, mustard 2, and 1 each of 5 other articles.

Of the 185 samples analysed, 8, or 4.3 per cent., proved not to be genuine, compared with an annual average of 145 samples analysed during the ten years 1913–22, of which 77, or 5.3 per cent., were non-genuine. Of the 89 milk samples, 83 were taken formally, and included all the 8 samples reported not to be genuine. The particulars as regards these 8 samples are as follows :—

1 and 2. Both contained 10 per cent. of added water. Both vendors were convicted, penalties of 10/- with 15/- costs, and £1 with 10/6 costs, being inflicted.

3, 4 and 5. Deficient 8, 10 and 13 per cent. in milk fat respectively. No proceedings taken, as all were from one vendor, and one was an appeal-to-cow sample.

6. Deficient 16 per cent. in milk fat. Proceedings taken were dismissed.

7 and 8. Deficient 6 and 8 per cent. respectively in milk fat. No proceedings taken ; vendors cautioned.

Cambridge Borough.—Samples taken for analysis numbered 265 (199 in 1922), comprising 156 informal and 109 formal samples. The principal items were:—Milk 186, separated milk 14, butter 6, cream 6, margarine 4, and dripping 4. Of the 45 other articles sampled, the number of samples in no case exceeded three.

The percentages of non-genuine samples, 25 in number, was 10.6, compared with 22.5, 7.8, 8.4, 9.7, 9.7, 6.4, 2.3, 6.8, 8.2, and 4.0 for the ten successive years from 1913 to 1922.

For purposes of economy in administration, all the 106 informal samples were centrifugalised, and the 9 samples found to be below the 3 per cent. fat standard were followed up by formal samples. Five of these check samples were reported genuine on analysis, two showed deficiency of 3 and 5 per cent. milk fat respectively (letters sent to vendors). The remaining two showed deficiency of 20 per cent. milk fat ; proceedings resulted in conviction, a fine of 20/- and 15/- costs being inflicted in one case, and the defendant being ordered to pay 19/9 costs in the other case. Nine formal samples taken showed deficiency of milk fat varying from 3 to 13 per cent. Proceedings taken in respect of one case of 3 per cent. deficiency were withdrawn, and proceedings taken for a check sample, which showed 13 per cent. deficiency, resulted in dismissal, *Hunt v. Richardson* being cited. The Town Council subsequently resolved that “ The Government be urged to introduce legislation to prevent the sale of milk containing less than 3 per cent. of fat.”

Thirty-five samples of milk were taken in course of delivery, and 5 samples were taken by “ appeal to the cow.”

In addition to milk, 3 samples of sago proved not to be genuine, consisting entirely of tapioca ; a conviction was obtained with regard to the 1 formal sample, a fine of 10/- with 15/9 costs being inflicted. The other 2 were informal, the second, a check sample, proving genuine.

Use of Preservatives.—In both urban and rural areas the Public Analyst examines for preservatives all samples taken under the Sale of Food and Drugs Acts which are likely to contain them. In the rural area boric acid was found to the extent of 0.20 to 0.40 per cent. in 9 samples of butter, and in quantities varying from 0.40 to 0.50 per cent. in 8 samples of margarine.

In Cambridge Borough no preservatives were found in any of the 97 samples of milk and cream examined. There was no offence under the Public Health (Milk and Cream) Regulations, 1912.

HOUSING OF THE WORKING CLASSES.

In the whole area of the Administrative County 237 new houses were built during the year ; 116 in Cambridge and 121 in the Rural Districts. Of these, 89 were erected with State assistance under the Housing Acts of 1919 or 1923, of which 30 were erected by the Local Authority in Cambridge, and 59 by other bodies or persons in the Rural Districts. The remaining 143 were erected by private enterprise.

The total number of houses inspected for defects under the Public Health or Housing Acts was 2,821, of which 1,267 were in Cambridge and 1,554 in the Rural Districts. Houses inspected under the Housing (Inspection of District) Regulations, 1910, numbered 1,078, (Cambridge 172, Rural Districts 906). Of the houses inspected, 75 were recorded as unfit for human habitation, 30 in Cambridge and 45 in the Rural Districts ; while 1,083 (Cambridge 865, Rural 218) were regarded as not in all respects reasonably fit for habitation.

As usual, the greater part of repair work was achieved by informal intimation to owners under the Housing, Town Planning Act, 1919, this resulting in the remedy of defects in 1,090 houses, of which 710 were in Cambridge, and 380 in the Rural Districts. Statutory notices were served

for repair of 80 houses (Cambridge 64, Rural 16), of which 42 were rendered fit by the owners (Cambridge 38, Rural 4), and 20 in Cambridge by the Local Authority in default of the owners. Similarly under the Public Health Acts, notices requiring the remedy of defects were served with respect to 117 houses (52 Cambridge, 65 Rural). In consequence, defects were remedied by the owners in 91 houses (Cambridge 35, Rural 56), the Local Authority taking necessary action in Cambridge with respect to 14 houses.

The figures furnished regarding closure and demolition of houses unfit for habitation again show the limitation of such action by the lack of other suitable accommodation. Only one representation for a Closing Order was made in Cambridge and 20 in the Rural Districts, 8 such Orders being actually made (Cambridge 1, Rural 7). In no case was the Order determined owing to the house being rendered fit for habitation; while 4 houses in the rural area were demolished.

As usual, the annual reports of the Medical Officers of Health refer to the impossibility of dealing with houses overcrowded or otherwise unfit for habitation, because of the shortage of suitable housing accommodation. In Newmarket Rural District cottages containing at least three bedrooms are said to be badly required for the agricultural population. In Chesterton Rural District the Housing Committee are reported to be endeavouring with the help of the subsidy and the proceeds of a penny rate to carry out a scheme for building cottages to be let at a rent that the labourer can afford to pay, but are finding the task a difficult one.

In memoranda included in the report on Cambridge, the gravity of the overcrowding problem is emphasised, with its serious consequences, both moral and physical. Age and sex difficulties result in boys and girls sleeping in the same room, or families are obliged to live apart, some in one house and some in another. The discomfort and friction arising

where two or more families occupy one house is drawn attention to, and Dr. Laird's illustrative cases show the danger of the spread of tubercular infection in seriously overcrowded houses.

When the returns of immediate housing requirements were furnished by the Local Sanitary Authorities in 1919 at the request of the Ministry of Health, it was estimated that there was pressing need for about 1,550 houses in the Administrative County. Successive annual reports on the Sanitary Districts have since indicated that some 930 houses have been erected, including 200 temporary tenements in Burrell's Walk, Cambridge. This leaves a shortage of more than 400 houses to fulfil what were regarded to be the most urgent requirements of the population five years ago, to which has to be added accommodation for the Burrell's Walk families, the unreplaced wastage of worn-out property, and the needs of natural increase of the population.

WATER SUPPLY

Schemes for the improved public supply of water have been brought to completion during the year under review in several Districts, notably the Newmarket Rural District.

In the Chesterton Rural District the provision of an additional public well near the new Council houses at Milton has been decided upon, and will be put in hand when the County Council agree to a site by the main road.

In Linton Rural District three new public tubed wells have been bored in the Chalk at Castle Camps, Duxford, and Weston Colville to depths of 232, 105 and 158 feet respectively, and are now in working order.

In Melbourn Rural District there was much complaint regarding the public supply to the parish of Great Chishall.

A well has now been sunk to a depth of 20 feet in the gravel, and is said to be yielding a plentiful supply of water.

In Newmarket Rural District, the scheme for the supply of water to Soham, the largest rural parish in the County, was completed. It provides a constant mained supply, with provision for future extensions to outlying parts and to the parish of Fordham. Water is derived from a well bored to a depth of 84 feet into the Chalk and Gault Clay, and is pumped by an oil engine to a tank of 70,000 gallons capacity on a water tower, from which it is distributed by gravity.

Progress has been made with the scheme for the supply of the parishes of Dullingham, Westley Waterless, Burrough Green and Brinkley from a tubed well in the Chalk. The trial boring, for which a loan was sanctioned by the Ministry of Health, was sunk to a total depth of 400 feet, and a satisfactory fourteen days' pumping test applied. A favourable result was also obtained from analysis, and the decision of the Ministry of Health as to proceeding with the scheme, following a local enquiry which has been held, is awaited.

The question of an additional public well at Burwell, with regard to which a petition has been received, is under consideration.

DRAINAGE, SEWERAGE, AND REFUSE DISPOSAL.

In the Newmarket Rural District Dr. Morgan draws attention to the fact that the sewers in the large parishes of Soham, Fordham and Burwell were really designed for surface water drainage only. Apart from the question of capacity, there is no means provided for purification of the effluent. Complaints with regard to drainage at Soham have resulted in the relaying of a section, and Dr. Morgan

properly points out that difficulties are likely to recur until the question of sewage disposal and purification has been dealt with, now that the parish has a mained supply of water. The District Council have had a special report on this subject before them. Sections of drain have also been relaid in Isleham, Cheveley, and Swaffham Prior.

In Swavesey Rural District sewer extension has been carried out at Fen Drayton and Swavesey. Reference was made to the latter parish in my report for 1922, since when the recommendation as to the installation of a flushing tank for the sewer has been carried into effect.

Attention has been called repeatedly in these reports to the need for scavenging schemes in the larger villages, where insanitary conditions are perpetuated which are commonly not met with in the towns. Some practical steps in this direction in certain of the villages are much overdue. A scavenging scheme for the parish of Soham in the Newmarket Rural District has been discussed, but no action yet taken. Reporting on Swavesey Rural District, Dr. Grove advocates the provision of scavenging carts in the larger villages as has been made with great benefit in adjoining Districts. In the Caxton Rural District, in which also there is no public scavenging system, Dr. Dudley notes that pail closets are being substituted for privy pits, but only 30 per cent. of the houses have this provision as yet.

VITAL STATISTICS AND INCIDENCE OF INFECTIOUS DISEASE.

Population.—The statistics relating to the enumeration of the population of the Administrative County made during the Census of 1921 have now been published by the Registrar-General. The figures quoted below are abstracted from the Census returns :—

Variation from Variation
Population. 1911 Census. per cent.

Administrative County	129,602	+ 1280	+ 1.0
Cambridge	59,264	+ 3452	+ 6.2
Rural Districts ...	70,338	- 2172	- 3.0
Caxton and			
Arrington ...	7,404	- 371	- 4.8
Chesterton ...	23,805	+ 623	+ 2.7
Linton	9,926	- 641	- 6.1
Melbourn... ..	8,092	- 446	- 5.2
Newmarket ...	18,647	- 1217	- 6.1
Swavesey ...	2,464	- 120	- 4.6

From this table it will be seen that the increases of population have been confined to Cambridge and the Chesterton Rural District, all other Rural Districts showing a decrease. The net change in the population from that of 1911 is due to two factors, (a) the natural increase or decrease by births and deaths, and (b) the net gain or loss by migration. The whole of the increase in this County is due to excess of births over deaths, the emigration (which includes War deaths outside the Country) being in excess of immigration. While Cambridge gained 3,045 by excess of births over deaths and 407 by migration, every Rural District suffered a net loss by migration amounting to a total deficit of 5,473 from this cause, which far out-balanced the population gained by the excess of 3,301 births over deaths. Against the natural increase of 6,346 for the whole County there has to be placed the loss of 5,066 persons by migration, leaving a net increase of 1,280 persons. The rate of increase of the population during the intercensal period 1911-21 was only 1.0 per cent., against 6.7 per cent. during the previous ten years, the actual net addition to the population being 1,280 persons, against 8,058 added between 1901-11. Apart from the general decline in the birth rate, the influence of the War is very

manifest in the reduction of the population by restriction of births and by heavy War casualties.

The following figures are furnished by the Registrar-General as representing the populations to be used for calculation of birth and death rates for the year 1923 :—

		<i>For</i> <i>Birth Rate.</i>	<i>For</i> <i>Death Rate.</i>
Administrative County	...	129770	129516
Cambridge Borough	...	59130	59130
Aggregate Rural Districts	...	70640	70386
Chesterton	...	24050	24050
Caxton and Arrington	...	7376	7376
Linton	...	9796	9542
Melbourn	...	8030	8030
Newmarket	...	18940	18940
Swavesey	...	2448	2448

The excess of births over deaths during 1923 yields a natural increase of the population for the year of 651, compared with 484 in 1922.

Birth Rate.—The statistics for 1923, based on figures furnished by the Registrar-General are as follows :—

	<i>Registered</i> <i>Births.</i>	<i>Birth Rate</i> <i>per 1000 living.</i>
Administrative County	2140	16.5
Cambridge Borough	909	15.4
Rural Districts	1231	17.4

The birth rate for the whole County fell steadily from 23.1 in 1901 to 18.3 in 1914. During the War it dropped to its lowest level, 13.5 in 1917, rose after demobilisation to 20.7 in 1920, afterwards falling through 1921 to 16.4 in 1922. The rate for 1923, viz., 16.5 per 1,000 living, was practically identical, and was actually 1.8 below the pre-War rate of 1914, 10.6 below the average annual rate for the ten years 1913-1922,

viz., 17.1 per 1,000, and 6.6 below the 1901 rate (23.1). In other words, for every 100 births per 1,000 persons living in 1901, there were only 71 births in 1923. The following figures show the reduction as compared with 1914 in both urban and rural areas.

<i>Number of Births.</i>				<i>Birth Rate.</i>		
	<i>Boro.'</i>	<i>Rural.</i>	<i>Total.</i>	<i>Boro.'</i>	<i>Rural.</i>	<i>Total.</i>
1914 ...	996	1393	2389	... 17.4	19.1	18.3
1922 ...	922	1203	2125	... 15.5	17.1	16.4
1923 ...	909	1231	2140	... 15.4	17.4	16.5

The birth-rate for Cambridge, 15.4 per 1,000 was again much below that for the Great Towns (20.4), and for England and Wales (19.7). The rates for the Cambridgeshire Rural Districts, from highest to lowest, were:—Newmarket 19.8 (376 births), Linton 17.5 (172), Chesterton 16.6 (400), Caxton 16.3 (120), Melbourn 16.2 (130), Swavesey 13.5 (33). The relative positions of these Districts vary greatly from year to year. No figure is furnished by the Registrar-General for Rural England and Wales, with which these rates can be compared.

There were 113 *illegitimate* births in the Administrative County, 53 in Cambridge, 60 in the Rural Districts, compared with 41 in Cambridge, 82 in the Rural Districts, and 123 total in 1922. Calculated as a percentage of total births, the proportion of illegitimate births was 5.8 in Cambridge, 4.9 in the rural area, and 5.3 in the Administrative County, against 4.4, 6.8, and 5.8. per cent. respectively in 1922.

If the proportion borne by illegitimate to total births in 1912 and 1913, viz., 4.2 and 4.5 per cent., may be taken as the normal pre-War proportion, the higher rate of 6.3 per cent. in 1914 being neglected as possibly due to special local circumstances, the influence of conditions attendant upon the War is well shewn by the rise through the five years 1915–1919 to the highest percentage of 8.7 illegitimate to total births in 1919. After 1919 there was a marked drop to 5.9, 5.7 and

5.8 per cent. in the three years 1920–22, with a further decline to 5.3 per cent. in 1923, still somewhat above the pre-War rate. During the War, the higher illegitimate rate obtained in some years in Cambridge and in others in the Rural Districts. From 1920 to 1923 the proportion of illegitimate births was higher in the rural districts, but this experience was reversed in 1923. Any marked reduction is hardly to be looked for until the housing shortage is remedied.

The proportion of *still-births* notified to total births notified was as follows :—

Borough of Cambridge	35	still-births,	or	3.8	per cent.
Rural Area	42	„	„	3.4	„
Whole County	77	„	„	3.6	„

These figures shew an increase on the proportion of still-births which occurred in the previous year, the percentage in 1922 having been 2.6 for Cambridge, 3.2 for the rural area and 2.9 for the Administrative County.

Death Rate from all Causes.—After allowing for deaths occurring away from the usual place of residence, the nett death rate for the whole County was 11.5 per 1,000 (11.6 for England and Wales). This rate was 1.2 per 1,000 lower than the 1922 rate for the County (12.7), and 1.8 below the average for the preceding ten years. It is the lowest rate yet recorded, with the exception of that for the year 1920, an exceptionally low rate (10.6 per 1,000). The rates for the urban and rural areas were 10.6 and 12.2 respectively, the death rate for Cambridge being 1.0 below that for the Great Towns (11.6).

The total deaths in the whole County numbered 1,489, (Cambridge 627, Rural 862), being 152 fewer than in 1922. The chief decreases were in the commoner infectious diseases, including influenza, and in respiratory diseases. There was no outstanding increase under any heading.

Infant Mortality.—The number of deaths under one year, 110 (urban 41, rural 69), was in the proportion of 51 deaths

per 1,000 *births* (England and Wales 69). The corresponding rate for Cambridge was 45, much below 72 for the Great Towns, and that for the rural area was 56 per 1,000 births, also a low rate. The rate for the Administrative County, 8 deaths per 1,000 births below the exceptionally low rate of the previous year, represents a saving of 15 lives per 1,000 births when compared with the annual average (66) for the preceding 10 years 1913-1922, and a saving of 36 lives per 1,000 births when compared with the annual average (87) for the ten years 1903-1912.

There were no noteworthy increases in mortality. The decreases of note were from whooping cough and pneumonia. Deaths from congenital debility (including premature birth), which should be influenced by ante-natal care, shew no great change, but such as there is is the in right direction, deaths attributed to these causes numbering 27 per 1,000 births in 1923, compared with an annual average of 29 and 28 for the five years 1913-17 and 1918-22 respectively.

The mortality during the year among illegitimate infants, compared with that among the legitimate, is shown by the following statement of deaths (approximate) per 1,000 births :—

		<i>Legitimate.</i>	<i>Illegitimate.</i>
Cambridge Borough	...	45	38
Rural Districts	...	54	100
Whole County	...	50	70

The actual numbers of deaths of illegitimate infants were 2 in Cambridge Borough and 6 in the Rural Districts, a total of 8 in the Administrative County among 113 illegitimate infants born. No reliable conclusions can be drawn from such small figures, which vary in the Borough and Rural Districts from year to year, and the following figures are therefore given shewing the respective mortality rates among 8,744 legitimate and 529 illegitimate infants born in the Administrative County during the four years 1920-1923.

Infant Deaths per 1,000 *births*, 1920-23.

		<i>Legitimate.</i>	<i>Illegitimate.</i>
Cambridge Borough	...	51	58
Rural Districts	...	55	90
Whole County	...	53	77

From these figures it will be seen that, taking the four years as a whole, there was no great difference in Cambridge between legitimate and illegitimate infants in their chance of survival to the end of the first year of life. In the rural area, however, the tendency to death of the illegitimate infant was much higher than that of the infant born in wedlock. It may possibly be that, apart from official supervision through the Health Visitors, there are fewer agencies interesting themselves in the welfare of the unmarried mother in the country than in the towns.

The figures at present available do not permit of comparison with pre-War conditions, and may not be large enough for sound conclusions. They do, however, compare very favourably with those for 1918 and 1919, in which the mortality rates for the illegitimate infant were double and treble respectively those for the legitimate, but during these years of the termination of the War there were factors specially adverse to the survival of the unwanted infant which will readily occur to the imagination. It is, however, satisfactory to note, that the excess of mortality of illegitimate infants over that of legitimate infants in this County is appreciably below that recorded for England and Wales. While this may be stated as practically double in England and Wales, the excess in the Administrative County as a whole does not exceed 45 per cent., that for Cambridge and for the Rural Districts being 14 and 64 per cent. respectively.

Mortality in Child Birth.—Deaths of mothers in connection with child-birth numbered 11, of which 3 were due to puerperal sepsis and 8 to other accidents and diseases of

pregnancy and child-birth. Three notifications of puerperal sepsis were received, one from Cambridge and 2 from the rural area. The 3 deaths registered from this cause were identical in number with the annual average for the preceding ten years.

During the ten years 1913-1922 the maternal deaths from other causes than sepsis totalled 20 in Cambridge, 40 in the rural districts and 60 in the Administrative County. The mortality rate from this cause was 3.7 per 1,000 *births* in 1923 against an average rate of 2.7 per 1,000 during the preceding ten years. The numbers, however, are small, and show considerable variation from year to year.

Infectious Diseases.—The record of mortality from the commoner infectious diseases was a distinctly favourable one compared with the previous year. There was a considerable decrease in the prevalence of scarlet fever and diphtheria, and, while the mortality from the latter disease was above that for England and Wales, only one death occurred from scarlet fever. Enteric fever again caused only one death, and mortality from measles and whooping cough was greatly reduced. Deaths from diarrhoeal diseases in infants were much below the average and the mortality from influenza and from pneumonia was considerably below that experienced in the previous year. The deaths from tuberculosis were below the average of recent years.

Small-pox.—No case of small-pox occurred, but notice was received of several contacts from ship-board, which were kept under observation. The information given in the Cambridge report shows that only 33.25 per cent. of infants were vaccinated in the old Borough, a low rate, though shewing an improvement on 29.57 per cent. during the previous year. This slight improvement may be due to the attention of the public having been drawn to the prevalence of small-pox in some parts of the Country, and to the public facilities provided for vaccination. This course was also

adopted in a number of the Rural Districts. Chicken-pox was also made compulsorily notifiable in the Newmarket and Melbourn Rural Districts.

Scarlet Fever.—Notifications numbered 141, compared with 214 in 1922. Of these, 61 were from Cambridge, and 80 from the rural area, where the greatest prevalence was in the Chesterton and Melbourn Rural Districts, with 39 and 24 notified cases respectively. Mortality was limited to one death, which occurred in Cambridge. The proportion of fatal to total cases was as low as 0.7 per cent. Altogether 93 cases, or 66 per cent. of those notified, were removed to various isolation hospitals.

In Cambridge there were no "return" cases, but cases occurring towards the end of the year were associated with unrecognised attacks among the children attending a Public Elementary School. There was no other feature of special interest in connection with this disease throughout the County.

Diphtheria.—Notifications received numbered 104, against 159 in 1922. Of these, 74 were from Cambridge and 30 from the Rural Districts, including 13 from Chesterton R.D. and 13 from Newmarket R.D. There were 12 deaths, of which 11 were in Cambridge and 1 in the Rural Districts, yielding a mortality rate of 0.09 per 1,000 living for the whole County, a rate higher than that for England and Wales (0.07). This was attributable to a reversion to a higher case fatality in Cambridge, where the recorded mortality per 1,000 living was 0.18, or double that for the Great Towns (0.09); the corresponding rate for the rural area did not exceed 0.01 per 1,000. Altogether, 88 cases, or 84 per cent. of those notified, were isolated in hospital.

In Cambridge, infection clung persistently to an Infant School where repeated swabbing revealed the presence of carrier cases. The experience of the year in Cambridge emphasises the necessity for seeking medical advice early, in order that antitoxin treatment may be given at the earliest

possible moment. In Chesterton Rural District prompt hospital isolation was very successful in limiting infection to households first attacked. At Soham, in the Newmarket Rural District, the detection of a carrier, and the subsequent measures taken, limited to three neighbouring houses what promised to be a serious outbreak.

Enteric Fever.—Notifications again were few in number, 7 being received (Cambridge 6, Rural Districts 1). Of the Cambridge cases 3 were notified as paratyphoid fever, and the 3 cases of enteric were contracted elsewhere. One of these cases proved fatal.

Diarrhoeal Diseases.—Three deaths among children under two years of age occurred in Cambridge, and 3 in the rural area, making a total of 6, against an average of 11 per annum during the previous ten years. The death rates per 1,000 births were 2.8 for the whole County (England and Wales 7.7), 3.3 for Cambridge (Great Towns 9.9) and 2.4 for the rural area. The local rates for these preventible diseases were again much below those for the country generally.

Whooping Cough.—There was a reduction of mortality caused by this disease, from 19 deaths in 1922 to 6 in 1923, of which 1 occurred in Cambridge and 5 in the Rural Districts. The mortality rates were 0.01 for Cambridge, 0.07 for the rural area, and 0.05 for the whole County, all much lower than those for the Country generally. Nursing facilities are provided under the Maternity and Child Welfare schemes.

Measles.—The year was one of low mortality, 2 deaths only occurring, both in the Rural Districts. For this disease also, nursing facilities are afforded.

Acute Poliomyelitis (Infantile Paralysis).—No notifications were received, and no deaths were recorded.

Cerebro Spinal Meningitis.—One case, which terminated fatally, was notified in Cambridge, none in the rural area.

Under the Public Health (Cerebro-Spinal Fever) Regulations, 1918, consultant opinion and serum treatment are provided by the County Council.

Encephalitis Lethargica.—Three cases were notified, two from Cambridge and one from the Chesterton Rural District ; none proved fatal.

Malaria.—Two notifications were received from the rural area, but no deaths recorded.

Ophthalmia Neonatorum.—Two cases only were notified, both from the rural area. One was treated at home, resulting in unimpaired vision, the other was admitted to hospital and died from other causes.

Pulmonary Tuberculosis.—The total number of notifications received (Form A) was 247, or 1.91 per 1,000 of the population, compared with 276 (2.13 per 1,000) in 1922. After deducting duplicates, the number of notifications received for the first time was 235 (1.81 per 1,000), against 271 (2.09 per 1,000) in 1922. There was therefore a reduction in notifications following the increase recorded for 1920 and 1921.

The number of deaths registered from this cause was 89, against 96 in 1922. In Cambridge Borough there were 47 deaths, compared with 39 in 1922, the number of deaths registered in the rural area being 42, compared with 57 in the previous year. The mortality rates per 1,000 living were :—Administrative County 0.69 (0.74 in 1922), Cambridge Borough 0.79 (0.64 in 1922), and Rural Districts 0.59 (0.81 in 1922).

Mortality attributed to pulmonary tuberculosis was thus rather lower for the County as a whole than in the previous year, a decrease in the rural area rather more than counterbalancing an increase in Cambridge. During the four War years 1915—1918 there was an excessive mortality from this cause, the average number of deaths reaching 135 per

annum. The average number of deaths, however, for the five post-War years 1919—1923, viz., 91 per annum, compared with an annual average of 112 for the five pre-War years 1910—14, shews again that the decline in loss of life from this cause, which was interrupted by the War, has now been resumed.

Tuberculosis of Other Organs.—There were 74 notifications received, compared with 45 in 1922, yielding a notification rate of 0.57 per 1,000. After deducting one duplicate notification, the number of notifications received for the first time was 73, yielding a primary notification rate of 0.56 per 1,000 of the population. The deaths numbered 22, compared with 23 in 1922. Of these, 8 occurred in Cambridge and 14 in the Rural Districts. The mortality rates per 1,000 living were as follows:—Administrative County 0.17 (0.18 in 1922), Cambridge 0.13 (0.19 in 1922), and Rural Districts 0.19 (0.17 in 1922).

Deaths under this heading averaged 34 per annum from 1910—1914, 25 per annum from 1915—1918, and 25 per annum from 1919—1923.

The total deaths in the Administrative County from tuberculosis of all organs numbered 111, of which 55 were recorded in Cambridge and 56 in the Rural Districts. These yield mortality rates of 0.86, 0.93 and 0.79 per 1,000. Comparing the five years since the War with the five years immediately preceding it, the average number of lives lost from tuberculosis of all organs in each post-War year was 117, as compared with 146 for the pre-War years, an annual saving of some 29 lives.

Pneumonia.—Mortality from this cause was appreciably below that recorded in the previous year, 52 deaths being returned, compared with 78 in 1922. Of these, 28 occurred in Cambridge and 24 in the rural area (41 and 37 in 1922). The mortality rate for Cambridge was 0.47 per 1,000 living, for the rural area 0.34, and for the whole County 0.40 per 1,000.

The number of notifications of acute primary pneumonia and acute influenzal pneumonia received in Cambridge was 17, and in the rural area 9, a total of 26 for the Administrative County.

Cancer.—There were 207 deaths attributed to cancer, against 209 in 1922. Of these, 98 occurred in Cambridge and 109 in the rural area. The proportion of recorded deaths per 1,000 living was 1.59 in the Administrative County (1.61 in 1922), 1.66 in Cambridge (1.45 in 1922), and 1.54 in the rural area (1.75 in 1922). Mortality recorded as due to cancer rose gradually, with some fluctuations, during the present century to a maximum rate of 1.71 per 1,000 in 1917, fell to 1.37 in 1920, and has since risen to 1.61 in 1922 and 1.59 in 1923. These figures again demonstrate the fact that this County shares in the increased mortality attributed to this cause which has been recorded for England and Wales generally of recent years.

Influenza.—Deaths attributed to this cause numbered 23 in the Administrative County (Cambridge 11, Rural Districts 12), yielding mortality rates of 0.18, 0.19 and 0.17 per 1,000 respectively. Following upon a year in which prevalence was above the normal, accounting for 85 deaths, the mortality rates were below those for England and Wales and the Great Towns (both 0.22). Excluding the pandemic years 1918–19 from consideration, the loss of life was much below the annual average of 36 deaths for the 16 years 1907 to 1922. Two-thirds of the deaths occurred at ages above 45 years, the excessive mortality in earlier life, which was a feature of the pandemic of 1918–19, having disappeared, and the age incidence reverting to a more normal distribution.

FRANK ROBINSON,
County Medical Officer of Health.

County Hall,
Cambridge.

